

AMENDMENTS TO THE CLAIMS

Claims 1-7. (Canceled)

8. (New) An air supply device comprising:
- a compression mechanism section having a stationary scroll and an orbital scroll held in engagement with each other;
- a drive section for driving said compression mechanism section, said compression mechanism section and said drive section having a common shaft for causing said orbital scroll to undergo an orbiting motion with respect to said stationary scroll and thereby compress air sucked into said compression mechanism section;
- rotation constraint members for preventing rotation of said orbital scroll about its own axis, while allowing said orbital scroll to orbit relative to said stationary scroll;
- first grease-filled bearings for rotatably supporting said common shaft;
- second grease-filled bearings for rotatably supporting said orbital scroll, each of said second grease-filled bearings having
- (i) an outer ring,
 - (ii) an inner ring,
 - (iii) rolling elements interposed between said outer ring and said inner ring, and
 - (iv) two sealing materials disposed on respective sides of said rolling elements,
- each of said two sealing materials having
- (a) an inner portion held in contact with said inner ring, said inner portion being bent towards a low-pressure side from a high-pressure side, and
 - (b) an outer end held in contact with said outer ring; and
- third grease-filled bearings for rotatably supporting each of said rotation constraint members.

9. (New) The air supply device according to claim 8, wherein each of said two sealing materials comprises one of acrylic rubber, Teflon rubber and fluoro rubber.

10. (New) The air supply device according to claim 9, wherein each of said rotation constraint members comprises a crankpin having an insertion portion inserted into an associated one of said third grease-filled bearings, said insertion portion having a groove in a surface thereof so as to extend parallel to a longitudinal axis of said insertion portion.

11. (New) The air supply device according to claim 10, wherein said groove has a width and a depth both in a range of 0.1 mm to 1.0 mm.

12. (New) The air supply device according to claim 9, wherein said compression mechanism section has recesses defined therein, with a groove being in a surface defining each of said recesses, and with each of said third grease-filled bearings being press fitted into a corresponding one of said each of said recesses such that said groove extends parallel to a longitudinal axis of an associated one of said rotation constraint members.

13. (New) The air supply device according to claim 12, wherein said groove has a width and a depth both in a range of 0.1 mm to 1.0 mm.

14. (New) The air supply device according to claim 8, wherein each of said rotation constraint members comprises a crankpin having an insertion portion inserted into an associated one of said third grease-filled bearings, said insertion portion having a groove in a surface thereof so as to extend parallel to a longitudinal axis of said insertion portion.

15. (New) The air supply device according to claim 14, wherein said groove has a width and a depth both in a range of 0.1 mm to 1.0 mm.

16. (New) The air supply device according to claim 8, wherein
said compression mechanism section has recesses defined therein, with a groove being in
a surface defining each of said recesses, and with each of said third grease-filled bearings being
press fitted into a corresponding one of said each of said recesses such that said groove extends
parallel to a longitudinal axis of an associated one of said rotation constraint members.

17. (New) The air supply device according to claim 16, wherein
said groove has a width and a depth both in a range of 0.1 mm to 1.0 mm.